```
:\Program Files\Stnexp\Queries\728580-2.str
                                                    CAS Port 2 10 (Claim, 33, etc.)
                                                                                  2:0-30
                                o-e-c
                                                  CLAIM 33, etc.
                                                                                 e 32- - 33
hain nodes :
 22 23 24 25 27
                      28
                           29
                               31
```

```
ing nodes :
         1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
ing/chain nodes :
        30 32 33
hain bonds :
         3-24 10-27 12-25 17-23 18-22 27-28 29-30 32-33 33-34
ing bonds :
        1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 8-11 9-10 13-14 13-21 15-16 15-20 15-21 16-17 17-18 18-19 19-20
                                                                                                                                                                                                                                                        9-14 11-12 11-16 12-13
xact/norm bonds :
         1-2 1-6 2-3 3-4 3-24 4-5 4-7 5-6 5-10 7-8 8-9 8-11 9-10 9-14 11-12 11-16 12-13 12-25 13-14 13-21 15-21 17-23 18-22 27-28 29-30 32-33 33-34
xact bonds :
         10-27
solated ring systems :
         containing 1:
1:H,CH3
2:H,OH,[*1],[*2],[*3]
atch level :
        1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 20:Atom 21:Atom 20:Atom 21:Atom 22:Atom 22:Atom 22:Atom 22:Atom 22:Atom 23:Atom 23:Atom
         22:CLASS 23:CLASS 24:CLASS 25:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS 31:Atom 32:CLASS 33:CLASS 34:CLASS
eneric attributes :
```

: Unsaturated

Saturation

=> file caplus
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 155.84 156.05

FILE 'CAPLUS' ENTERED AT 19:03:05 ON 20 NOV 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Nov 2004 VOL 141 ISS 22 FILE LAST UPDATED: 18 Nov 2004 (20041118/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 19:01:56 ON 20 NOV 2004)

FILE 'REGISTRY' ENTERED AT 19:02:05 ON 20 NOV 2004

STRUCTURE UPLOADED

L2 0 S L1

L3 4 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 19:03:05 ON 20 NOV 2004

=> s 13

T.1

L4 2 L3

=> d l4 1-2 bib abs hitstr

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:382225 CAPLUS

DN 139:101312

TI Synthetic Studies on Ecteinascidin-743: Constructing a Versatile Pentacyclic Intermediate for the Synthesis of Ecteinascidins and Saframycins

AU Jin, Wei; Metobo, Sammy; Williams, Robert M.

CS Department of Chemistry, Colorado State University, Fort Collins, CO, 80523, USA

SO Organic Letters (2003), 5(12), 2095-2098 CODEN: ORLEF7; ISSN: 1523-7060

American Chemical Society

DT Journal

LA English

OS CASREACT 139:101312

GΙ

PB

AB The asym. synthesis of a highly functionalized pentacyclic tetrahydroisoquinoline, I, relevant to the ecteinascidin, saframycin, safracin, and renieramycin family of antitumor alkaloids is described. I was prepared via Staudinger reaction of imine II with the ketene of acid chloride III and a Pictet-Spengler cyclization.

IT 557785-63-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(asym. synthesis of pentacyclic isoquinoline as intermediate for ecteinascidins and saframycins via Staudinger and Pictet-Spengler reactions)

RN 557785-63-4 CAPLUS

CN 6,15-Imino-7H-isoquino[3,2-b][3]benzazocin-7-one, 5,6,9,15-tetrahydro-1-hydroxy-2,11,13-trimethoxy-3,12,16-trimethyl-10-(phenylmethoxy)-9-[(phenylmethoxy)methyl]-, (6S,9R,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
L4
     2001:545697 CAPLUS
AN
DN
     135:137633
     Preparation of saframycin-ecteinascidin analogs and their therapeutic
ΤI
     applications
     Danishefsky, Samuel J.; Zhou, Bishan
IN
     The Trustees of Columbia University in the City of New York, USA
PA
     PCT Int. Appl., 115 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
                                              APPLICATION NO.
                                 DATE
                                                                      DATE
     PATENT NO.
                          KIND
                                              ______
                                                                      _____
                          ----
                                 _____
                                              WO 2001-US1877
                                                                      20010119
PI
     WO 2001053299
                           A1
                                 20010726
                           C2
     WO 2001053299
                                 20021024
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
              SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
              ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
              DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
              BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           CA 2001-2397597
     CA 2397597
                           AΑ
                                  20010726
                                                                       20010119
                                              US 2001-765515
                                  20020228
                                                                       20010119
     US 2002025962
                           A1
     US 6686470
                           B2
                                  20040203
                                              EP 2001-903151
                                                                       20010119
                           A1
                                  20021106
     EP 1254140
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                                                       20010119
                           T2
                                  20030708
                                              JP 2001-553773
     JP 2003520801
                                              US 2003-728580
                                                                       20031205
     US 2004127709
                           A1
                                  20040701
PRAI US 2000-177071P
                           P
                                  20000119
     US 2001-765515
                           Α3
                                  20010119
     WO 2001-US1877
                           W
                                  20010119
     MARPAT 135:137633
os
GΙ
```

$$R^{40}$$
 $R^{10}$ 
 $R$ 

AB Compds. of the saframycin-ecteinascidin series such as I [R1,R4 = H, alkyl, acyl; R3 = =0, OH, ether, sulfide, acyl group such as OC(O)Me, OC(O)Bn and OC(O)Et; R5 = H, halogen, OH, ether, acyl, amide; R6 = =0, OH, OMe, CN, acyloxy; R7 = =0, OH, halogen, ether, acyl; R8 and R9 independently = H, Me, OMe, OEt, CF3, Br, F; R8R9 = OCH2O, five or six membered ring; R10,R11 = Me, OMe, OEt, SMe, SEt; R12 = H, alkyl, acyl; chiral center marked \* has the R or the S configuration], were prepared for use as antitumor and antimicrobial agents. Thus, saframycin analog II was prepared via a multistep synthetic sequence starting from 2,4-Dimethoxy-3-methylbenzaldehyde, bromoacetal, 2-hydroxy-4-methoxy-3-methylbenzaldehyde and [[(2E)-4-bromo-2-butenyl]oxy](1,1-dimethylethyl)dimethylsilane. Ecteinascidin 743 I (R1 = Ac, R2R3 = X, R4 = R5 = R7 = H, R6 = α-OH, R8R9 = OCH2O, R10-R12 = Me) was tested for cytotoxicity and antimicrobial activity.

IT 351377-82-7P 351378-34-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of saframycin-ecteinascidin analogs and their therapeutic applications)

RN 351377-82-7 CAPLUS CN 6,15-Imino-7H-isoqu

6,15-Imino-7H-isoquino[3,2-b][3]benzazocin-7-one, 5,6,9,15-tetrahydro-1,2,4,10,11,13-hexamethoxy-3,12,16-trimethyl-9-[(phenylmethoxy)methyl]-, (6S,9R,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 351378-34-2 CAPLUS

CN 6,15-Imino-7H-isoquino[3,2-b][3]benzazocin-7-one, 5,6,9,15-tetrahydro-1,13-dihydroxy-9-(hydroxymethyl)-2,10,11-trimethoxy-3,12,16-trimethyl-, (6S,9R,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 351377-80-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of saframycin-ecteinascidin analogs and their therapeutic applications)

RN 351377-80-5 CAPLUS

CN 6,15-Imino-7H-isoquino[3,2-b][3]benzazocin-7-one, 5,6,9,15-tetrahydro-13-hydroxy-9-(hydroxymethyl)-1,2,4,10,11-pentamethoxy-3,12,16-trimethyl-, (6S,9R,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file caold		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	10.40	166.45
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-1.40	-1.40

FILE 'CAOLD' ENTERED AT 19:04:01 ON 20 NOV 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> s 13 L5 0 L3

=> log h SINCE FILE COST IN U.S. DOLLARS TOTAL SESSION ENTRY FULL ESTIMATED COST 0.42 166.87 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE 0.00 -1.40

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 19:04:09 ON 20 NOV 2004